

# ALLOY LED Specifications

## Polara™ LED Puck Light



Polara LED Puck Lights provide bright, high quality dimmable LED lighting for close spaces such as cabinets, shelves, and cases. The Polara Puck is a compact, durable fixture with a brushed aluminum finish, and features a diffuser cover for hotspot-free LED light. This puck has the added feature of two installation options, surface mount or recessed, so it can be integrated into any installation.

### TECHNICAL INFORMATION

|                                   |                    |
|-----------------------------------|--------------------|
| <b>Dimensions (dia. x height)</b> | 2.73 x 0.48 inches |
| <b>Material</b>                   | Aluminum           |
| <b>Power Consumption</b>          | 3W                 |
| <b>Input Voltage</b>              | 12V DC             |
| <b>Diode Quantity</b>             | 24                 |

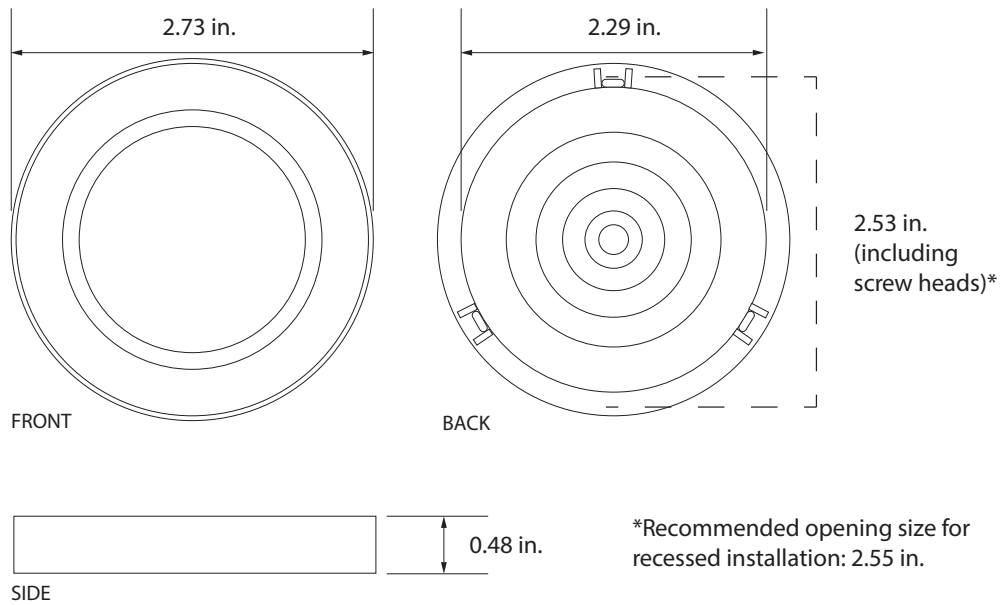
|                              |                                  |
|------------------------------|----------------------------------|
| <b>Diode Type</b>            | 3014                             |
| <b>Beam Angle</b>            | 120°                             |
| <b>Lead Wire</b>             | 36 in. w/female DC plug          |
| <b>Operating Temperature</b> | -4°F to 104°F, relative humidity |
| <b>Environment</b>           | Indoor, Dry                      |
| <b>Certifications</b>        | ETL, RoHS, CE                    |
| <b>Warranty</b>              | 3 year limited                   |



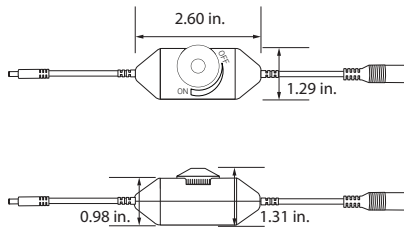
### PRODUCT INFORMATION

| Item #           | Kelvin temp. (CCT) | Lumens | CRI | Finish   |
|------------------|--------------------|--------|-----|----------|
| AL-04-01-1201-WH | 2700K              | 141    | 98  | White    |
| AL-04-01-1202-AL | 2700K              | 141    | 98  | Aluminum |
| AL-04-01-1203-BL | 2700K              | 141    | 98  | Black    |
| AL-04-01-1211-WH | 3000K              | 133    | 98  | White    |
| AL-04-01-1212-AL | 3000K              | 133    | 98  | Aluminum |
| AL-04-01-1213-BL | 3000K              | 133    | 98  | Black    |
| AL-04-01-1231-WH | 5000K              | 204    | 95  | White    |
| AL-04-01-1232-AL | 5000K              | 204    | 95  | Aluminum |
| AL-04-01-1233-BL | 5000K              | 204    | 95  | Black    |

## DIMENSIONS



## DIMMING ACCESSORY (SOLD SEPARATELY)



**Inline Rotary LED Dimmer Switch**  
AL-97-99-9917

## SAFETY & TIPS

- DO NOT CONNECT LED PUCK LIGHTS DIRECTLY TO 120V AC POWER.
- This fixture should be powered only by a Class 2, UL Listed 12V DC power supply.
- Do not overload the 12V DC power supply. Overloading the power supply may cause shorting, overheating, and possibly fire.
- Do not expose this fixture to direct moisture.
- Do not cut or otherwise alter the DC plug attached to this fixture.

## INSTALLATION

### Surface Mounting

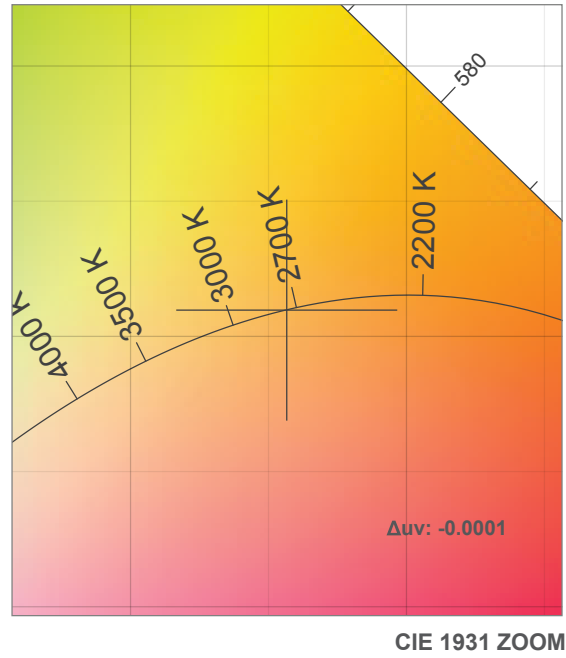
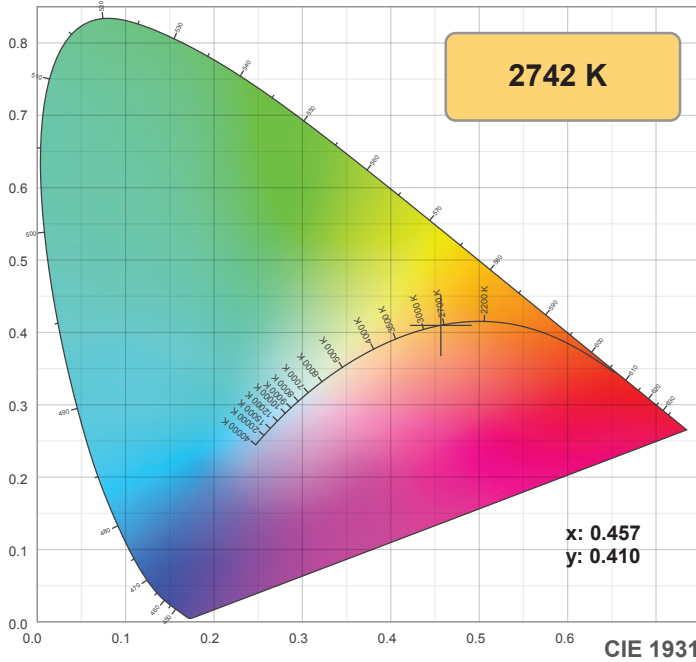
1. Remove mounting ring from puck.
2. Thread the puck cable through the ring and seat it in the ring's notch.
3. Secure the mounting ring to the surface with the included screws.
4. Snap the puck into the mounting ring.

### Recessed mounting

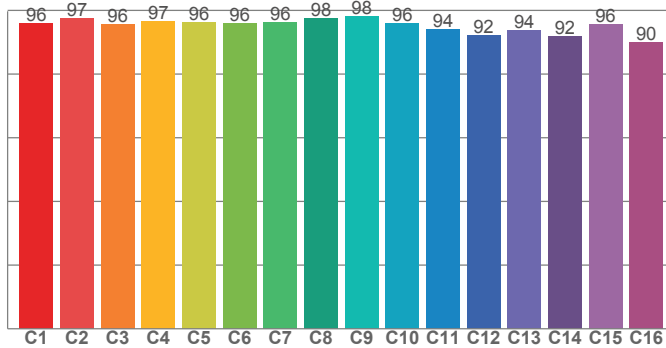
1. Cut a 2.55 in. opening where the puck will be installed. This size opening leaves room for the heads of the screws that hold the puck's flanges.
2. Thread the cable into the opening and snap the puck into place.

Note: specifications are representative of the diode type and not a particular tape light article.

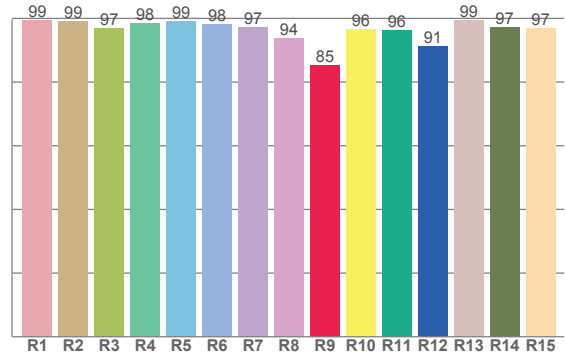
2700K



TM30: 95.3



CRI: 97.8 (R1-R8)



CRI R values, only R1-R8 are used to calculate final CRI value

| R1   | R2   | R3   | R4   | R5   | R6   | R7   | R8   | R9   | R10  | R11  | R12  | R13  | R14  | R15  |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 99.3 | 99.0 | 96.8 | 98.4 | 99.2 | 98.3 | 97.1 | 93.9 | 85.3 | 96.5 | 96.4 | 91.2 | 99.5 | 97.2 | 96.8 |

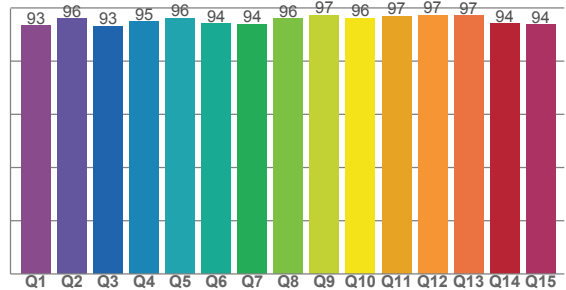
TM30 C values, 16 binned values out of total of 99 C values

| C1   | C2   | C3   | C4   | C5   | C6   | C7   | C8   | C9   | C10  | C11  | C12  | C13  | C14  | C15  | C16  |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 96.0 | 97.5 | 95.7 | 96.5 | 96.2 | 95.8 | 96.3 | 97.6 | 98.0 | 96.0 | 94.0 | 92.1 | 93.7 | 91.9 | 95.6 | 90.1 |

CQS Q values

| Q1   | Q2   | Q3   | Q4   | Q5   | Q6   | Q7   | Q8   | Q9   | Q10  | Q11  | Q12  | Q13  | Q14  | Q15  |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 93.4 | 96.0 | 93.2 | 94.9 | 96.2 | 94.1 | 93.9 | 96.0 | 97.3 | 96.2 | 97.0 | 97.3 | 97.2 | 94.0 | 93.7 |

CQS: 94.9



Color parameters

| Color temperature | Color rendering index | Red component | Color fidelity | Color gamut | Color quality scale | Color coordinate cie 1931 | Color coordinate cie 1931 | Color coordinate | Color coordinate | Color deviation from black body |
|-------------------|-----------------------|---------------|----------------|-------------|---------------------|---------------------------|---------------------------|------------------|------------------|---------------------------------|
| CCT               | CRI                   | CRI R9        | TM30 Rf        | TM30 Rg     | CQS                 | x                         | y                         | u                | v                | Δuv                             |
| 2742 K            | 97.8                  | 85.3          | 95.3           | 101.2       | 94.9                | 0.457                     | 0.410                     | 0.261            | 0.351            | -0.0001                         |

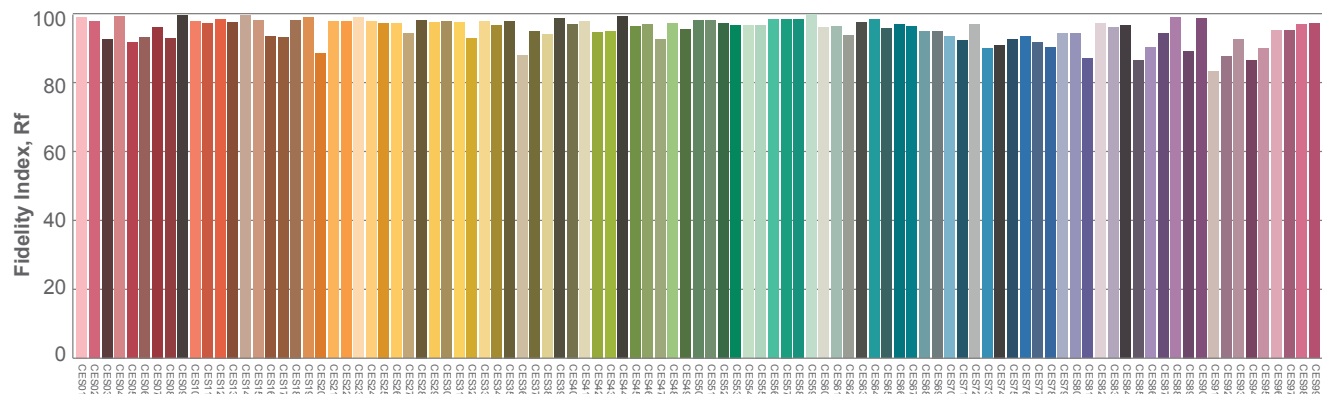
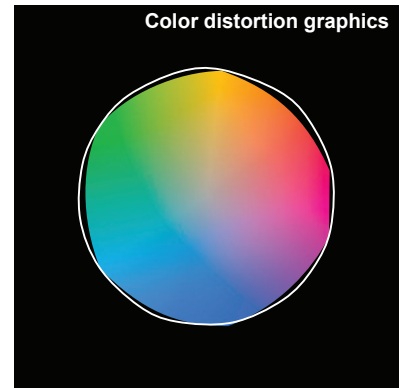
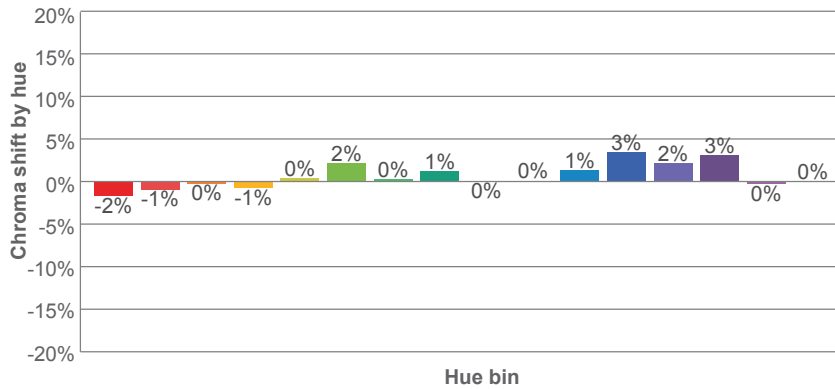
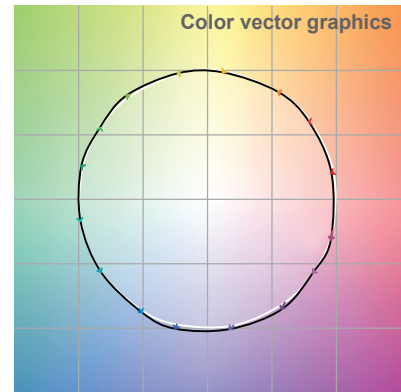
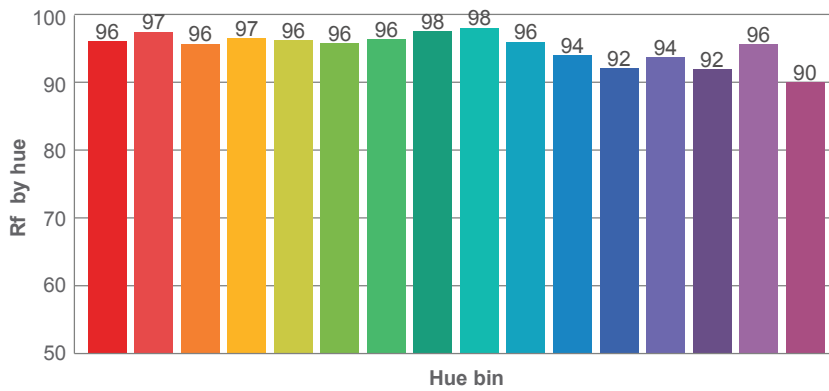
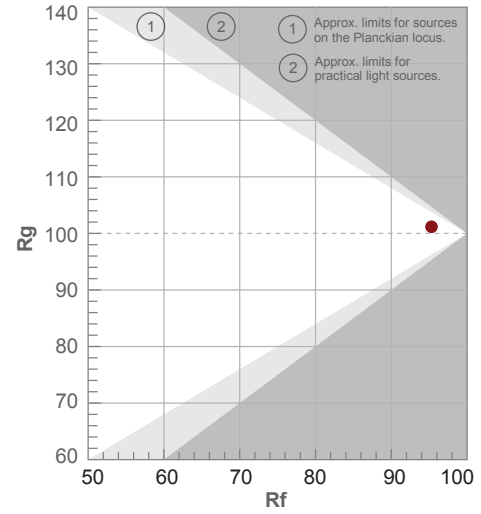
Note: specifications are representative of the diode type and not a particular tape light article.

2700K

**Rf 95.3**  
Fidelity index Rf

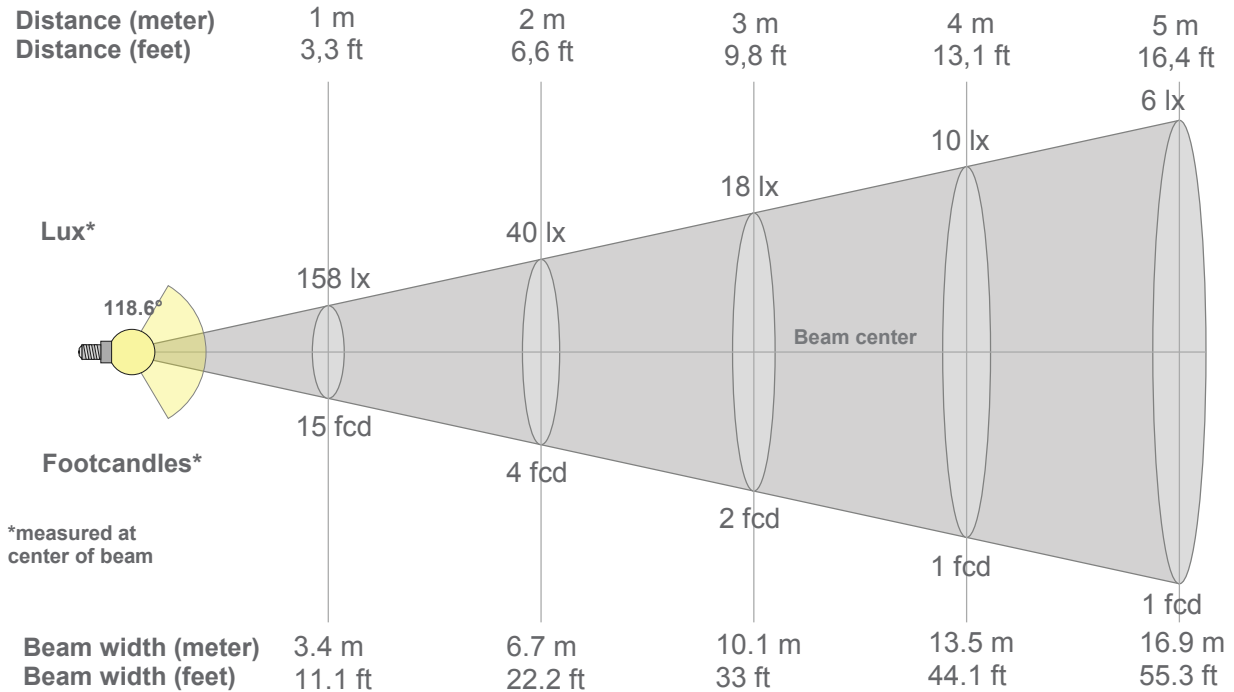
**Rg 101.2**  
Gammut index Rg

| Hue Bin | R <sub>f</sub> | Graphic shifts (%) |     |
|---------|----------------|--------------------|-----|
|         |                | Chroma             | Hue |
| 1       | 96             | -2%                | 0%  |
| 2       | 97             | -1%                | 1%  |
| 3       | 96             | 0%                 | 2%  |
| 4       | 97             | -1%                | 0%  |
| 5       | 96             | 0%                 | 2%  |
| 6       | 96             | 2%                 | 1%  |
| 7       | 96             | 0%                 | -1% |
| 8       | 98             | 1%                 | -1% |
| 9       | 98             | 0%                 | 0%  |
| 10      | 96             | 0%                 | 2%  |
| 11      | 94             | 1%                 | 4%  |
| 12      | 92             | 3%                 | 0%  |
| 13      | 94             | 2%                 | -4% |
| 14      | 92             | 3%                 | -5% |
| 15      | 96             | 0%                 | -2% |
| 16      | 90             | 0%                 | -7% |



Note: specifications are representative of the diode type and not a particular tape light article.

2700K



### Beam intensities from 1-20m

| 1m      | 2m     | 3m     | 4m     | 5m     | 6m     | 7m     | 8m     | 9m     | 10m    | 11m    | 12m    | 13m    | 14m    | 15m    | 16m    | 17m    | 18m    | 19m    | 20m    |
|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 3.3ft   | 6.6ft  | 9.8ft  | 13.1ft | 16.4ft | 19.7ft | 23ft   | 26.2ft | 29.5ft | 32.8ft | 36.1ft | 39.4ft | 42.7ft | 45.9ft | 49.2ft | 52.5ft | 55.8ft | 59.1ft | 62.3ft | 65.6ft |
| 158lx   | 40lx   | 18lx   | 10lx   | 6lx    | 4lx    | 3lx    | 2lx    | 2lx    | 2lx    | 1lx    | 1lx    | 1lx    | 1lx    | 1lx    | 1lx    | 1lx    | 0lx    | 0lx    | 0lx    |
| 14.7fcd | 3.7fcd | 1.6fcd | 0.9fcd | 0.6fcd | 0.4fcd | 0.3fcd | 0.2fcd | 0.2fcd | 0.1fcd | 0.1fcd | 0.1fcd | 0.1fcd | 0.1fcd | 0.1fcd | 0.1fcd | 0.1fcd | 0fcd   | 0fcd   | 0fcd   |

### Intensities in 0° c-plane

| 0°   | 5°   | 10° | 15° | 20° | 25° | 30° | 35° | 40° | 45° | 50° | 55° | 60° | 65° | 70° | 75° | 80° | 85° | 90° | 95° |
|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 158  | 158  | 156 | 153 | 149 | 143 | 137 | 129 | 121 | 111 | 101 | 90  | 77  | 64  | 51  | 37  | 24  | 10  | 2   | 0   |
| 100% | 100% | 98% | 97% | 94% | 90% | 87% | 82% | 76% | 70% | 64% | 57% | 49% | 41% | 32% | 24% | 15% | 7%  | 1%  | 0%  |

### Intensities in 90° c-plane

| 0°   | 5°   | 10° | 15° | 20° | 25° | 30° | 35° | 40° | 45° | 50° | 55° | 60° | 65° | 70° | 75° | 80° | 85° | 90° | 95° |
|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 158  | 158  | 156 | 153 | 149 | 143 | 137 | 129 | 121 | 111 | 101 | 90  | 77  | 64  | 51  | 37  | 24  | 10  | 2   | 0   |
| 100% | 100% | 98% | 97% | 94% | 90% | 87% | 82% | 76% | 70% | 64% | 57% | 49% | 41% | 32% | 24% | 15% | 7%  | 1%  | 0%  |

### Intensities in 180° c-plane

| 0°   | 5°   | 10° | 15° | 20° | 25° | 30° | 35° | 40° | 45° | 50° | 55° | 60° | 65° | 70° | 75° | 80° | 85° | 90° | 95° |
|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 158  | 157  | 156 | 153 | 148 | 143 | 137 | 129 | 120 | 111 | 101 | 89  | 77  | 64  | 51  | 37  | 24  | 11  | 2   | 0   |
| 100% | 100% | 98% | 96% | 94% | 90% | 86% | 82% | 76% | 70% | 64% | 57% | 49% | 41% | 32% | 24% | 15% | 7%  | 1%  | 0%  |

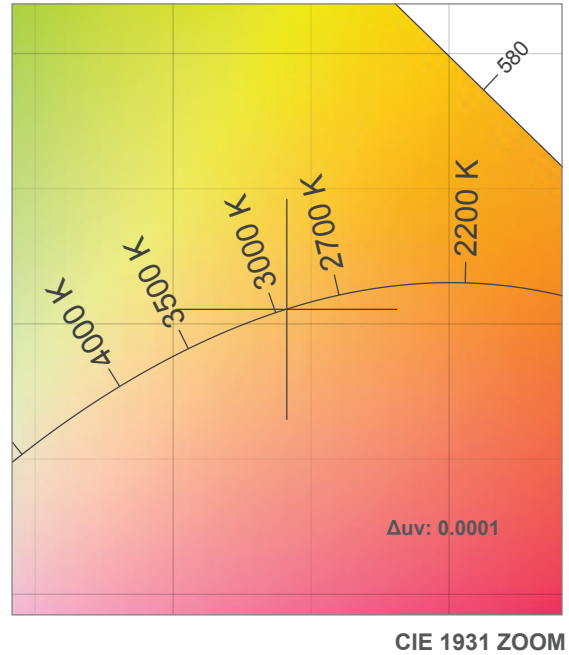
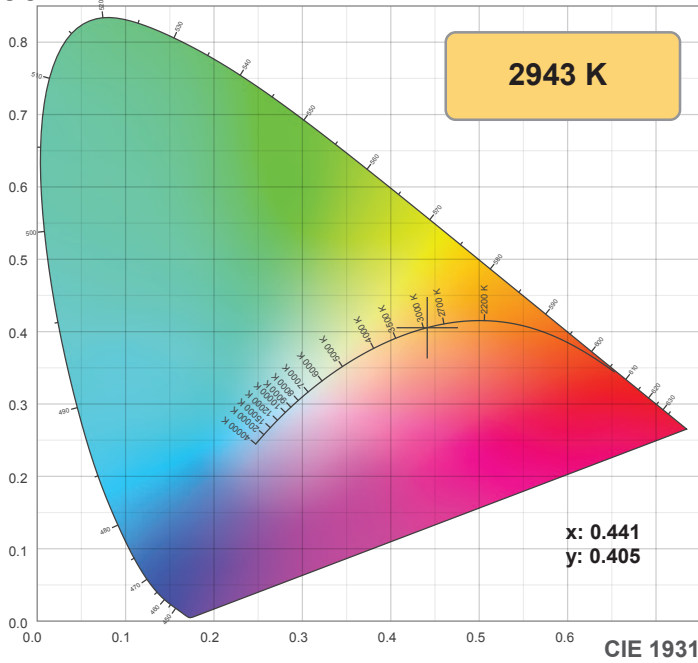
### Intensities in 270° c-plane

| 0°   | 5°   | 10° | 15° | 20° | 25° | 30° | 35° | 40° | 45° | 50° | 55° | 60° | 65° | 70° | 75° | 80° | 85° | 90° | 95° |
|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 158  | 157  | 156 | 153 | 148 | 143 | 137 | 129 | 120 | 111 | 101 | 89  | 77  | 64  | 51  | 37  | 24  | 11  | 2   | 0   |
| 100% | 100% | 98% | 96% | 94% | 90% | 86% | 82% | 76% | 70% | 64% | 57% | 49% | 41% | 32% | 24% | 15% | 7%  | 1%  | 0%  |

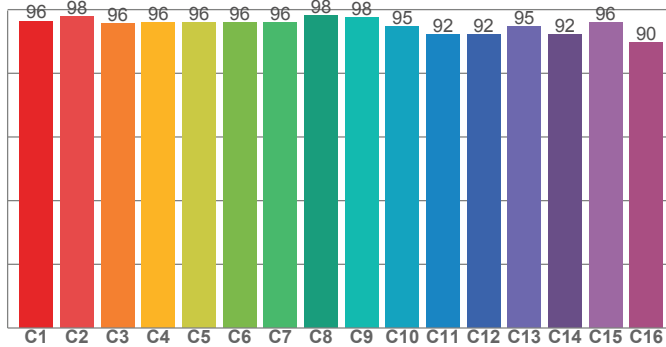
| Beam angle 50% | Field angle 10% | Cutoff angle 2,5% | Intensity ratio in 120° cone | Intensity ratio in 90° cone |
|----------------|-----------------|-------------------|------------------------------|-----------------------------|
| <b>118.6°</b>  | <b>166.1°</b>   | <b>176.7°</b>     | <b>75.8%</b>                 | <b>50.7%</b>                |

Note: specifications are representative of the diode type and not a particular tape light article.

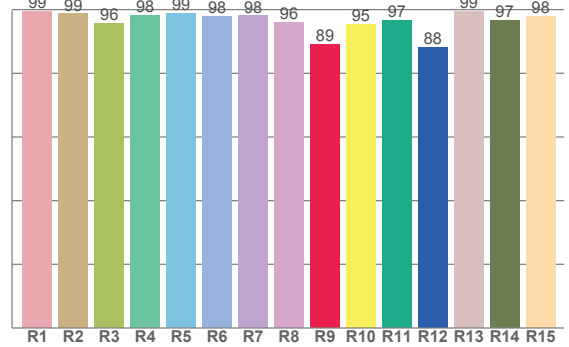
3000K



TM30: 95.1



CRI: 97.8 (R1-R8)



CRI R values, only R1-R8 are used to calculate final CRI value

| R1   | R2   | R3   | R4   | R5   | R6   | R7   | R8   | R9   | R10  | R11  | R12  | R13  | R14  | R15  |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 99.4 | 98.6 | 95.8 | 98.1 | 98.9 | 97.8 | 98.0 | 95.9 | 89.1 | 95.4 | 96.6 | 88.1 | 99.4 | 96.7 | 97.8 |

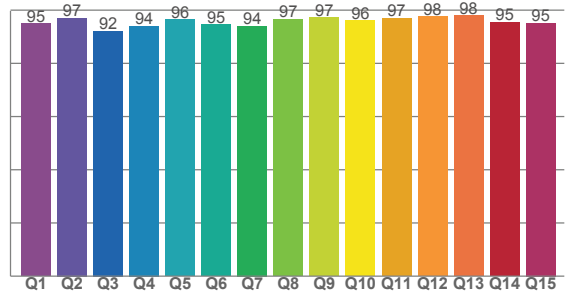
TM30 C values, 16 binned values out of total of 99 C values

| C1   | C2   | C3   | C4   | C5   | C6   | C7   | C8   | C9   | C10  | C11  | C12  | C13  | C14  | C15  | C16  |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 96.4 | 97.8 | 95.5 | 95.8 | 95.9 | 95.9 | 95.9 | 98.0 | 97.5 | 94.6 | 92.2 | 92.0 | 94.8 | 92.3 | 95.9 | 89.5 |

CQS Q values

| Q1   | Q2   | Q3   | Q4   | Q5   | Q6   | Q7   | Q8   | Q9   | Q10  | Q11  | Q12  | Q13  | Q14  | Q15  |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 94.9 | 97.1 | 92.2 | 94.0 | 96.4 | 94.6 | 94.1 | 96.6 | 97.2 | 96.1 | 97.0 | 97.7 | 98.0 | 95.5 | 95.2 |

CQS: 95.3



Color parameters

| Color temperature | Color rendering index | Red component | Color fidelity | Color gamut | Color quality scale | Color coordinate cie 1931 | Color coordinate cie 1931 | Color coordinate | Color coordinate | Color deviation from black body |
|-------------------|-----------------------|---------------|----------------|-------------|---------------------|---------------------------|---------------------------|------------------|------------------|---------------------------------|
| CCT               | CRI                   | CRI R9        | TM30 Rf        | TM30 Rg     | CQS                 | x                         | y                         | u                | v                | Δuv                             |
| 2943 K            | 97.8                  | 89.1          | 95.1           | 101.4       | 95.3                | 0.441                     | 0.405                     | 0.253            | 0.348            | 0.0001                          |

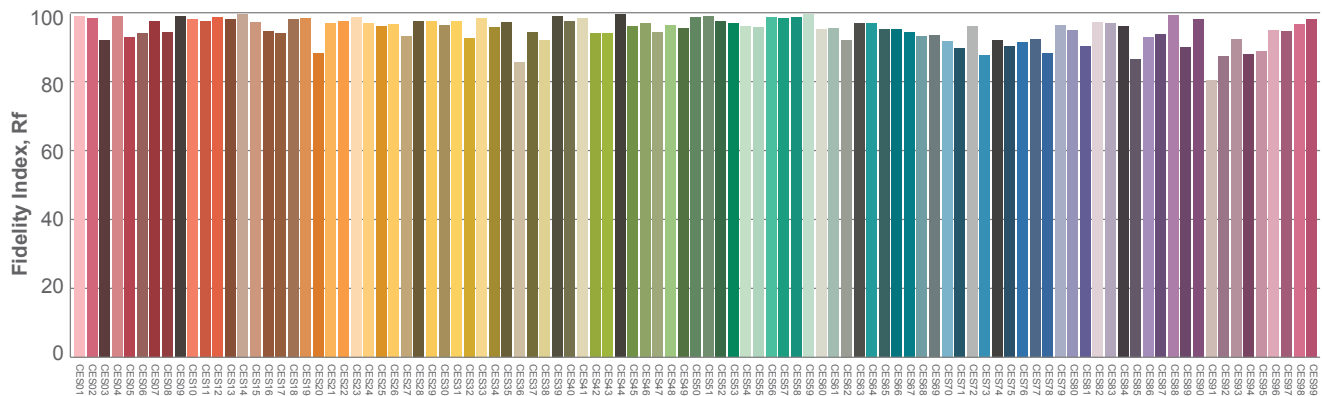
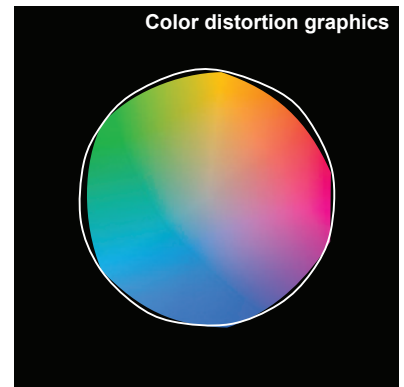
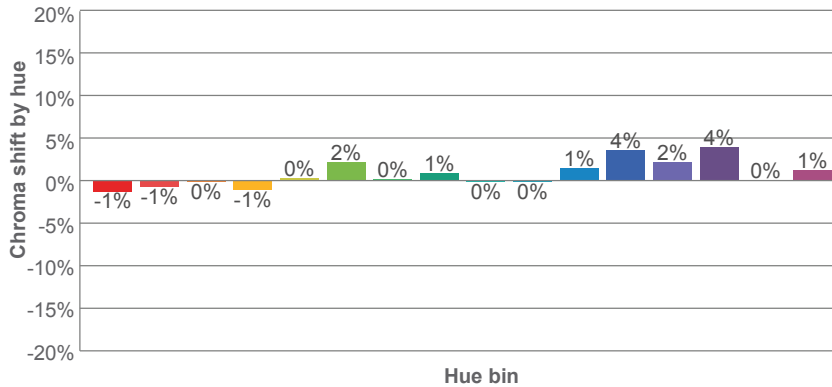
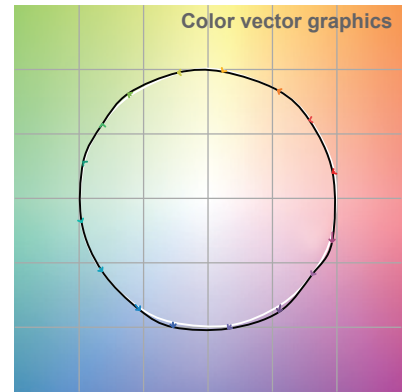
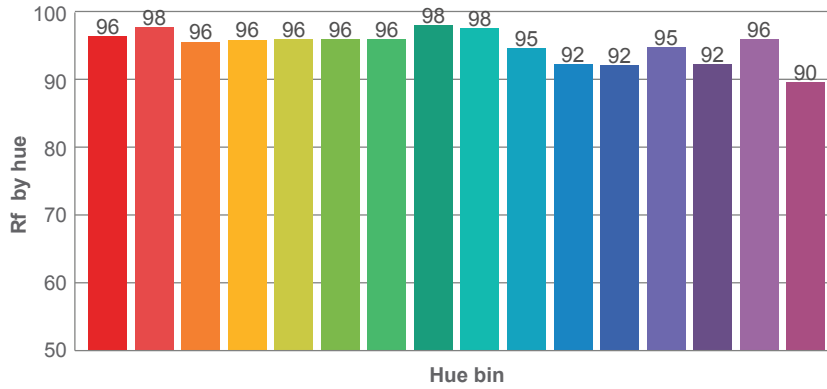
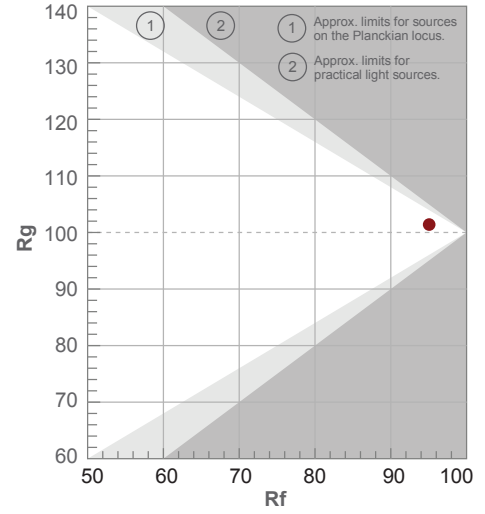
Note: specifications are representative of the diode type and not a particular tape light article.

3000K

**Rf 95.1**  
Fidelity index Rf

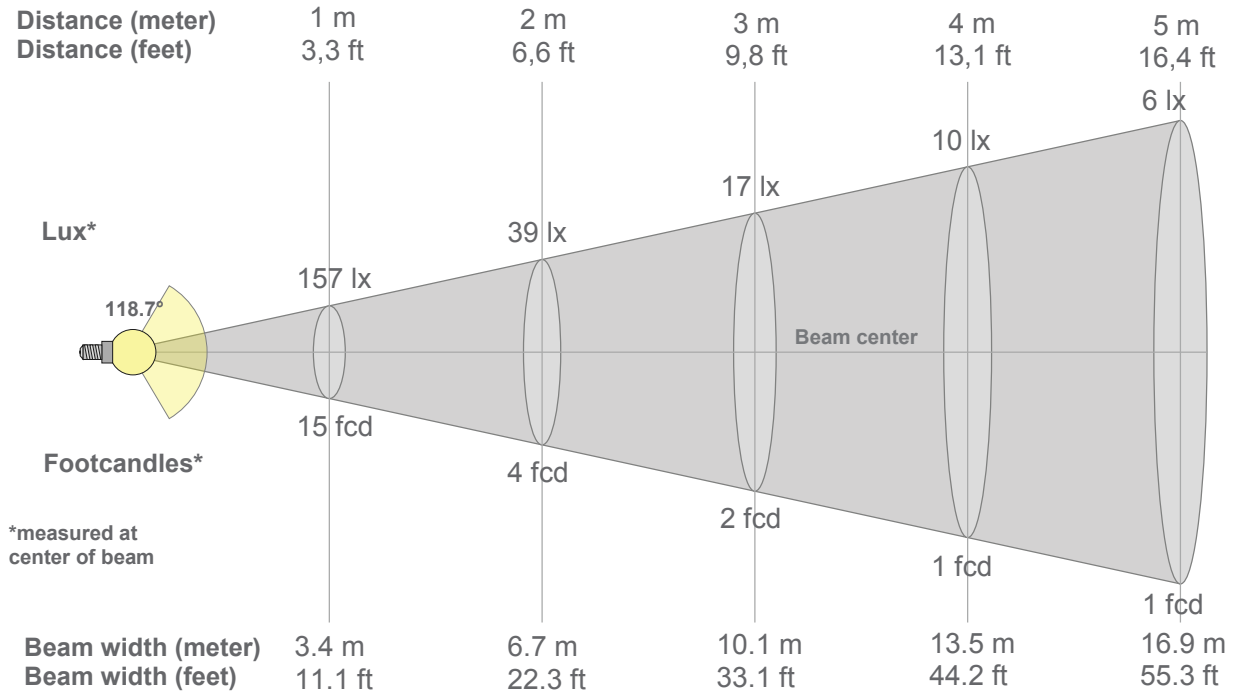
**Rg 101.4**  
Gammut index Rg

| Hue Bin | R <sub>f</sub> | Graphic shifts (%) |     |
|---------|----------------|--------------------|-----|
|         |                | Chroma             | Hue |
| 1       | 96             | -1%                | 0%  |
| 2       | 98             | -1%                | 0%  |
| 3       | 96             | 0%                 | 2%  |
| 4       | 96             | -1%                | 0%  |
| 5       | 96             | 0%                 | 2%  |
| 6       | 96             | 2%                 | 1%  |
| 7       | 96             | 0%                 | 0%  |
| 8       | 98             | 1%                 | -1% |
| 9       | 98             | 0%                 | 1%  |
| 10      | 95             | 0%                 | 3%  |
| 11      | 92             | 1%                 | 5%  |
| 12      | 92             | 4%                 | 1%  |
| 13      | 95             | 2%                 | -2% |
| 14      | 92             | 4%                 | -4% |
| 15      | 96             | 0%                 | -2% |
| 16      | 90             | 1%                 | -7% |



Note: specifications are representative of the diode type and not a particular tape light article.

3000K



### Beam intensities from 1-20m

| 1m      | 2m     | 3m     | 4m     | 5m     | 6m     | 7m     | 8m     | 9m     | 10m    | 11m    | 12m    | 13m    | 14m    | 15m    | 16m    | 17m    | 18m    | 19m    | 20m    |
|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 3.3ft   | 6.6ft  | 9.8ft  | 13.1ft | 16.4ft | 19.7ft | 23ft   | 26.2ft | 29.5ft | 32.8ft | 36.1ft | 39.4ft | 42.7ft | 45.9ft | 49.2ft | 52.5ft | 55.8ft | 59.1ft | 62.3ft | 65.6ft |
| 157lx   | 39lx   | 17lx   | 10lx   | 6lx    | 4lx    | 3lx    | 2lx    | 2lx    | 2lx    | 1lx    | 1lx    | 1lx    | 1lx    | 1lx    | 1lx    | 1lx    | 0lx    | 0lx    | 0lx    |
| 14.6fcd | 3.7fcd | 1.6fcd | 0.9fcd | 0.6fcd | 0.4fcd | 0.3fcd | 0.2fcd | 0.2fcd | 0.1fcd | 0.1fcd | 0.1fcd | 0.1fcd | 0.1fcd | 0.1fcd | 0.1fcd | 0.1fcd | 0fcd   | 0fcd   | 0fcd   |

### Intensities in 0° c-plane

| 0°   | 5°   | 10° | 15° | 20° | 25° | 30° | 35° | 40° | 45° | 50° | 55° | 60° | 65° | 70° | 75° | 80° | 85° | 90° | 95° |
|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 157  | 157  | 155 | 152 | 147 | 142 | 136 | 128 | 120 | 110 | 100 | 89  | 77  | 65  | 51  | 38  | 25  | 12  | 3   | 1   |
| 100% | 100% | 98% | 97% | 94% | 90% | 86% | 82% | 76% | 70% | 64% | 57% | 49% | 41% | 33% | 24% | 16% | 8%  | 2%  | 0%  |

### Intensities in 90° c-plane

| 0°   | 5°   | 10° | 15° | 20° | 25° | 30° | 35° | 40° | 45° | 50° | 55° | 60° | 65° | 70° | 75° | 80° | 85° | 90° | 95° |
|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 157  | 157  | 155 | 152 | 147 | 142 | 136 | 128 | 120 | 110 | 100 | 89  | 77  | 65  | 51  | 38  | 25  | 12  | 3   | 1   |
| 100% | 100% | 98% | 97% | 94% | 90% | 86% | 82% | 76% | 70% | 64% | 57% | 49% | 41% | 33% | 24% | 16% | 8%  | 2%  | 0%  |

### Intensities in 180° c-plane

| 0°   | 5°   | 10° | 15° | 20° | 25° | 30° | 35° | 40° | 45° | 50° | 55° | 60° | 65° | 70° | 75° | 80° | 85° | 90° | 95° |
|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 157  | 157  | 155 | 152 | 148 | 143 | 137 | 129 | 121 | 111 | 101 | 89  | 77  | 64  | 51  | 37  | 23  | 10  | 1   | 0   |
| 100% | 100% | 98% | 97% | 94% | 91% | 87% | 82% | 77% | 71% | 64% | 57% | 49% | 41% | 32% | 24% | 15% | 7%  | 1%  | 0%  |

### Intensities in 270° c-plane

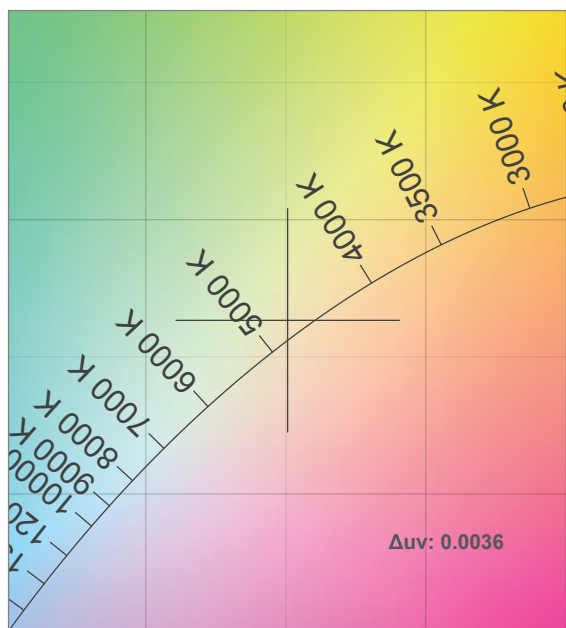
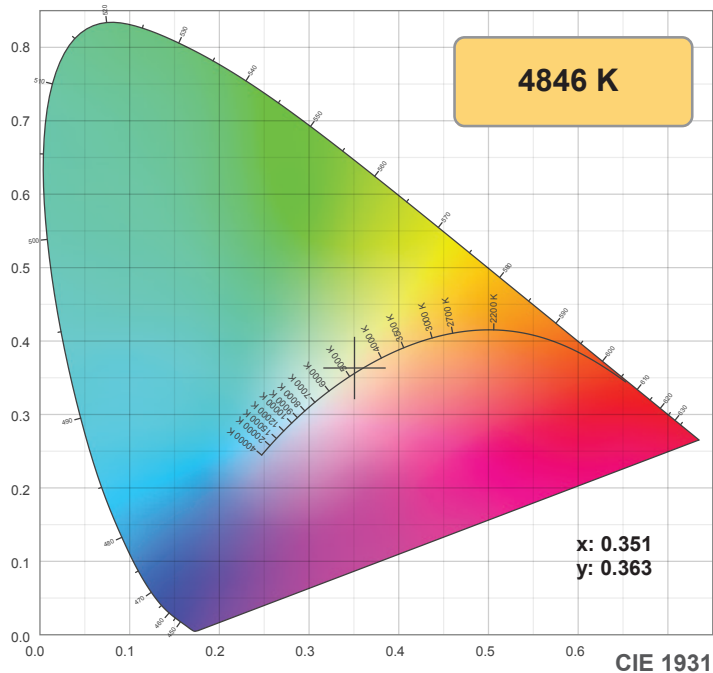
| 0°   | 5°   | 10° | 15° | 20° | 25° | 30° | 35° | 40° | 45° | 50° | 55° | 60° | 65° | 70° | 75° | 80° | 85° | 90° | 95° |
|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 157  | 157  | 155 | 152 | 148 | 143 | 137 | 129 | 121 | 111 | 101 | 89  | 77  | 64  | 51  | 37  | 23  | 10  | 1   | 0   |
| 100% | 100% | 98% | 97% | 94% | 91% | 87% | 82% | 77% | 71% | 64% | 57% | 49% | 41% | 32% | 24% | 15% | 7%  | 1%  | 0%  |

| Beam angle 50% | Field angle 10% | Cutoff angle 2,5% | Intensity ratio in 120° cone | Intensity ratio in 90° cone |
|----------------|-----------------|-------------------|------------------------------|-----------------------------|
| 118.7°         | 166.4°          | 177.4°            | 75.5%                        | 50.5%                       |

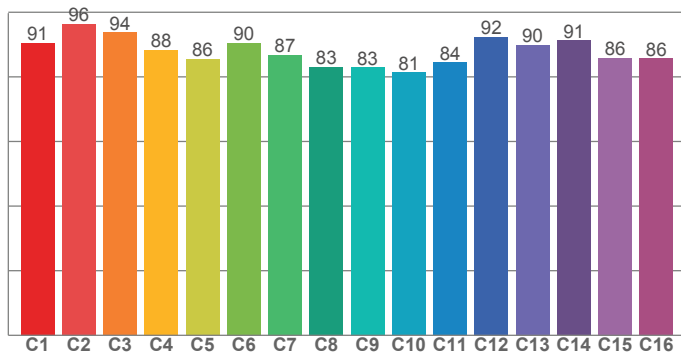


Note: specifications are representative of the diode type and not a particular tape light article.

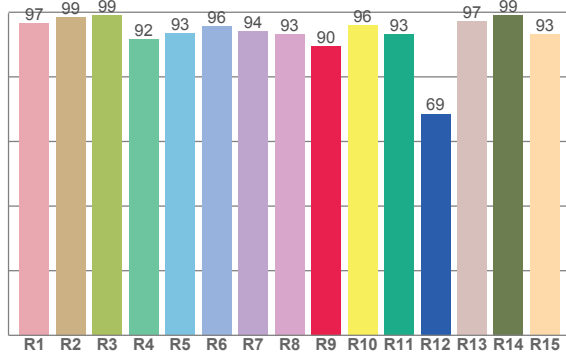
5000K



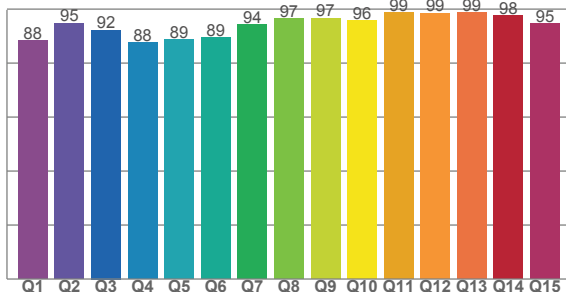
TM30: 87.9



CRI: 95.3 (R1-R8)



CQS: 93.0



CRI R values, only R1-R8 are used to calculate final CRI value

| R1   | R2   | R3   | R4   | R5   | R6   | R7   | R8   | R9   | R10  | R11  | R12  | R13  | R14  | R15  |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 96.6 | 98.6 | 99.0 | 91.5 | 93.5 | 95.7 | 94.2 | 93.2 | 89.5 | 95.9 | 93.1 | 68.6 | 97.2 | 99.2 | 93.2 |

TM30 C values, 16 binned values out of total of 99 C values

| C1   | C2   | C3   | C4   | C5   | C6   | C7   | C8   | C9   | C10  | C11  | C12  | C13  | C14  | C15  | C16  |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 90.5 | 96.4 | 93.8 | 88.4 | 85.6 | 90.5 | 86.8 | 83.1 | 83.0 | 81.4 | 84.5 | 92.4 | 89.9 | 91.2 | 85.8 | 85.7 |

CQS Q values

| Q1   | Q2   | Q3   | Q4   | Q5   | Q6   | Q7   | Q8   | Q9   | Q10  | Q11  | Q12  | Q13  | Q14  | Q15  |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 88.3 | 94.8 | 92.3 | 87.6 | 88.7 | 89.4 | 94.2 | 96.5 | 96.7 | 95.7 | 98.6 | 98.5 | 98.7 | 97.7 | 94.5 |

Color parameters

| Color temperature | Color rendering index | Red component | Color fidelity | Color gamut | Color quality scale | Color coordinate cie 1931 | Color coordinate cie 1931 | Color coordinate | Color coordinate | Color deviation from black body |
|-------------------|-----------------------|---------------|----------------|-------------|---------------------|---------------------------|---------------------------|------------------|------------------|---------------------------------|
| CCT               | CRI                   | CRI R9        | TM30 Rf        | TM30 Rg     | CQS                 | x                         | y                         | u                | v                | Δuv                             |
| 4846 K            | 95.3                  | 89.5          | 87.9           | 96.1        | 93.0                | 0.351                     | 0.363                     | 0.211            | 0.327            | 0.0036                          |

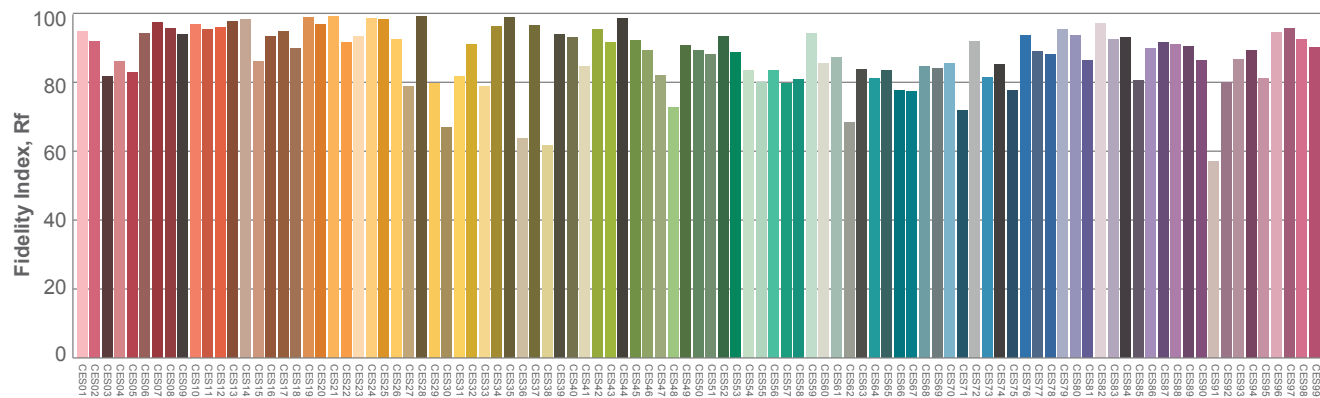
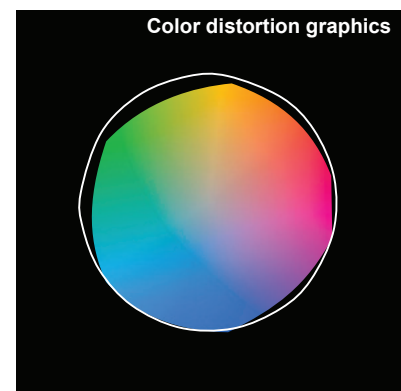
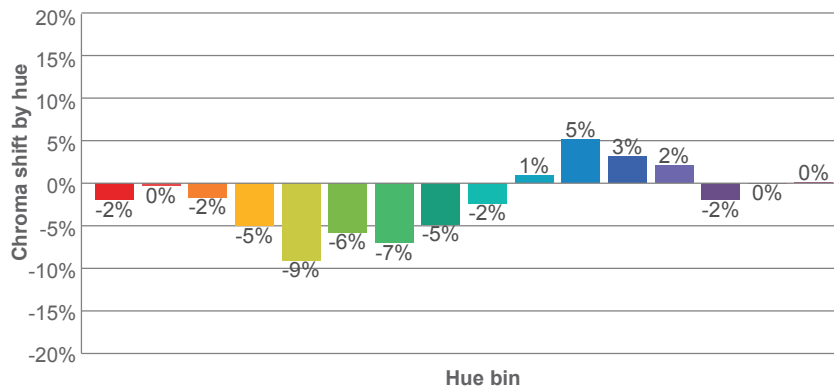
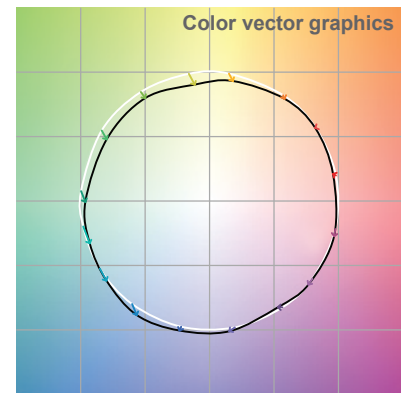
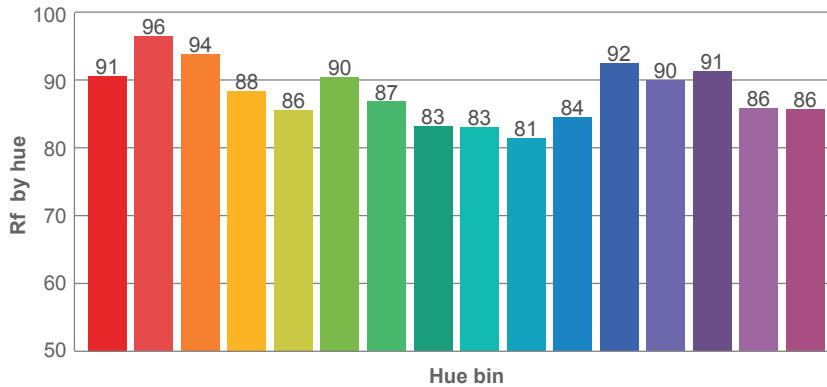
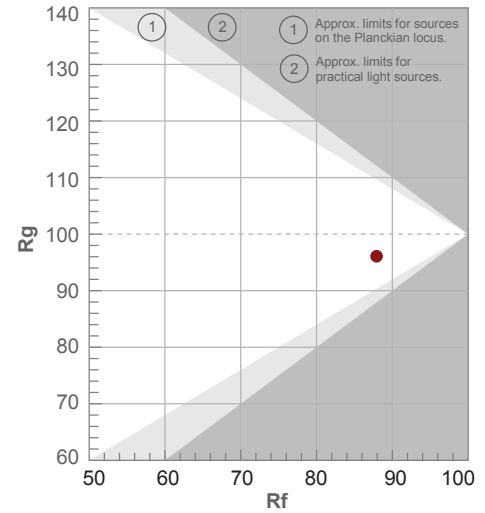
Note: specifications are representative of the diode type and not a particular tape light article.

5000K

**Rf 87.9**  
Fidelity index Rf

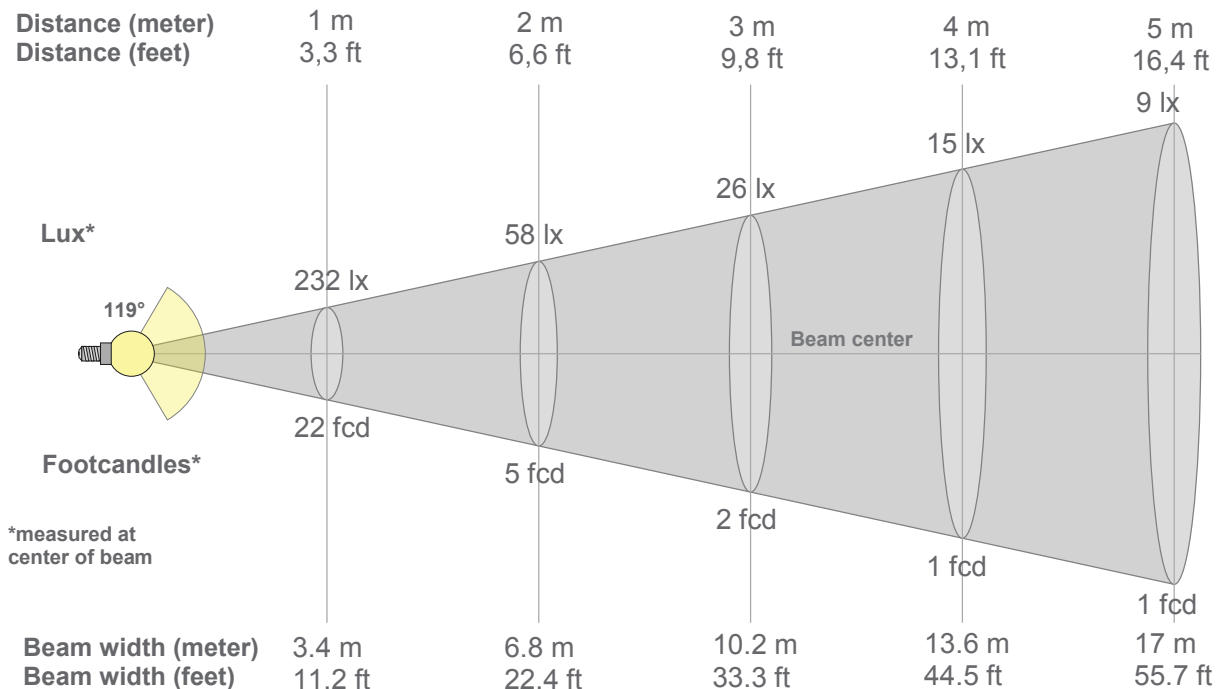
**Rg 96.1**  
Gammut index Rg

| Hue Bin | R <sub>f</sub> | Graphic shifts (%) |     |
|---------|----------------|--------------------|-----|
|         |                | Chroma             | Hue |
| 1       | 91             | -2%                | 2%  |
| 2       | 96             | 0%                 | 0%  |
| 3       | 94             | -2%                | -2% |
| 4       | 88             | -5%                | -4% |
| 5       | 86             | -9%                | -3% |
| 6       | 90             | -6%                | 0%  |
| 7       | 87             | -7%                | 4%  |
| 8       | 83             | -5%                | 8%  |
| 9       | 83             | -2%                | 14% |
| 10      | 81             | 1%                 | 11% |
| 11      | 84             | 5%                 | 8%  |
| 12      | 92             | 3%                 | -1% |
| 13      | 90             | 2%                 | -5% |
| 14      | 91             | -2%                | -3% |
| 15      | 86             | 0%                 | -5% |
| 16      | 86             | 0%                 | -6% |



Note: specifications are representative of the diode type and not a particular tape light article.

5000K



**Beam intensities from 1-20m**

| 1m      | 2m     | 3m     | 4m     | 5m     | 6m     | 7m     | 8m     | 9m     | 10m    | 11m    | 12m    | 13m    | 14m    | 15m    | 16m    | 17m    | 18m    | 19m    | 20m    |
|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 3.3ft   | 6.6ft  | 9.8ft  | 13.1ft | 16.4ft | 19.7ft | 23ft   | 26.2ft | 29.5ft | 32.8ft | 36.1ft | 39.4ft | 42.7ft | 45.9ft | 49.2ft | 52.5ft | 55.8ft | 59.1ft | 62.3ft | 65.6ft |
| 232lx   | 58lx   | 26lx   | 15lx   | 9lx    | 6lx    | 5lx    | 4lx    | 3lx    | 2lx    | 2lx    | 2lx    | 1lx    | 1lx    | 1lx    | 1lx    | 1lx    | 1lx    | 1lx    | 1lx    |
| 21.6fcd | 5.4fcd | 2.4fcd | 1.3fcd | 0.9fcd | 0.6fcd | 0.4fcd | 0.3fcd | 0.3fcd | 0.2fcd | 0.2fcd | 0.1fcd | 0.1fcd | 0.1fcd | 0.1fcd | 0.1fcd | 0.1fcd | 0.1fcd | 0.1fcd | 0.1fcd |

**Intensities in 0° c-plane**

| 0°   | 5°   | 10° | 15° | 20° | 25° | 30° | 35° | 40° | 45° | 50° | 55° | 60° | 65° | 70° | 75° | 80° | 85° | 90° | 95° |
|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 232  | 232  | 229 | 225 | 219 | 211 | 201 | 191 | 178 | 164 | 149 | 132 | 114 | 95  | 75  | 56  | 36  | 17  | 5   | 1   |
| 100% | 100% | 98% | 97% | 94% | 91% | 87% | 82% | 77% | 71% | 64% | 57% | 49% | 41% | 32% | 24% | 15% | 7%  | 2%  | 0%  |

**Intensities in 90° c-plane**

| 0°   | 5°   | 10° | 15° | 20° | 25° | 30° | 35° | 40° | 45° | 50° | 55° | 60° | 65° | 70° | 75° | 80° | 85° | 90° | 95° |
|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 232  | 232  | 229 | 225 | 219 | 211 | 201 | 191 | 178 | 164 | 149 | 132 | 114 | 95  | 75  | 56  | 36  | 17  | 5   | 1   |
| 100% | 100% | 98% | 97% | 94% | 91% | 87% | 82% | 77% | 71% | 64% | 57% | 49% | 41% | 32% | 24% | 15% | 7%  | 2%  | 0%  |

**Intensities in 180° c-plane**

| 0°   | 5°   | 10° | 15° | 20° | 25° | 30° | 35° | 40° | 45° | 50° | 55° | 60° | 65° | 70° | 75° | 80° | 85° | 90° | 95° |
|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 232  | 232  | 229 | 225 | 219 | 211 | 202 | 191 | 178 | 164 | 149 | 132 | 114 | 95  | 76  | 56  | 36  | 17  | 3   | 0   |
| 100% | 100% | 99% | 97% | 94% | 91% | 87% | 82% | 77% | 71% | 64% | 57% | 49% | 41% | 33% | 24% | 15% | 7%  | 1%  | 0%  |

**Intensities in 270° c-plane**

| 0°   | 5°   | 10° | 15° | 20° | 25° | 30° | 35° | 40° | 45° | 50° | 55° | 60° | 65° | 70° | 75° | 80° | 85° | 90° | 95° |
|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 232  | 232  | 229 | 225 | 219 | 211 | 202 | 191 | 178 | 164 | 149 | 132 | 114 | 95  | 76  | 56  | 36  | 17  | 3   | 0   |
| 100% | 100% | 99% | 97% | 94% | 91% | 87% | 82% | 77% | 71% | 64% | 57% | 49% | 41% | 33% | 24% | 15% | 7%  | 1%  | 0%  |

| Beam angle 50% | Field angle 10% | Cutoff angle 2,5% | Intensity ratio in 120° cone | Intensity ratio in 90° cone |
|----------------|-----------------|-------------------|------------------------------|-----------------------------|
| 119°           | 166.6°          | 178°              | 75.5%                        | 50.5%                       |